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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/897,732

07/03/2001

Jae-Hong Kim

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09/22/2004

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EXAMINER

FAN, CHIEH M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,732

Applicant(s)

KIM ET AL.

Examiner

Chieh M Fan

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0308,0418,06102004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 11/10/2000. It is noted, however, that applicant has not filed a certified copy of the Korea 2000-66862 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, the limitations “a frame length indicating parameter” recited in lines 3-4 and “a frame length parameter” recited in lines 4-5 have exactly the same purpose (i.e., indicating the possible frame length). It is not clear how to distinguish the difference between the two limitations.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Okumura et al. (WO97/50219, listed in the IDS filed 3/8/04, “Okumura” hereinafter).

Regarding claim 1, Okumura teaches an apparatus for decoding data of unknown frame length, comprising:

a preliminary decoding part for decoding input data into preliminarily decoded data according to each of the possible frame lengths (lines 10-13 of abstract); and

a decoded data outputting part for selectively outputting data that correspond to a frame length detected from the input data, from among the preliminarily decoded data which are decoded by the preliminary decoding part according to each of the possible frame lengths (lines 13-22 of abstract).

Regarding claim 4, claim 4 is the corresponding method claim of claim 1 and is therefore rejected for the same reason above.

7. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Nara (EP 0817440, listed in the IDS filed 4/16/04).

Regarding claim 1, Nara teaches an apparatus for decoding data of unknown frame length, comprising:

a preliminary decoding part for decoding input data into preliminarily decoded data according to each of the possible frame lengths (step (a) in claim 1, note that different data rate corresponds to different frame length, see Fig. 1); and

a decoded data outputting part for selectively outputting data that correspond to a frame length detected from the input data, from among the preliminarily decoded data which are decoded by the preliminary decoding part according to each of the possible frame lengths (steps (b)-(d) in claim 1, page 7, lines 23-25).

Regarding claim 4, claim 4 is the corresponding method claim of claim 1 and is therefore rejected for the same reason above.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okumura et al. (WO97/50219, listed in the IDS filed 3/8/04, "Okumura" hereinafter) in view of the admitted prior art.

Regarding claim 2, Okumura teaches the claimed invention as applied to claim 1 above including using a Viterbi decoder in the claimed preliminary decoding part (line 11 of the abstract), but does not particularly show the viterbi decoder includes a branch metrics calculating part, an ACS (Adding, Calculating & Selecting) part, a path metrics storing part, a tracebacked data storing part, and a traceback controlling part.

However, it is well known that all five parts are essential parts to construct a viterbi decoder. The admitted prior art described in the background section (pages 1 and 2 of the specification) and Fig. 1 (see elements 210, 230, 250, 270 and 290) of the present application shows all five parts. Therefore, it would have been obvious to a

person of ordinary skill in the art at the time the invention was made to construct the viterbi decoder of Okumura as claimed, since all five parts are essential elements and explicitly required for a viterbi decoder. Note that the traceback controlling part would inherently control the tracebacks storing part according to each of the possible frame lengths since the viterbi decoder in the system of Okumura decodes the data for each possible frame length.

Regarding claim 5, claim 5 is the corresponding method claim of claim 2 and is therefore rejected for the same reason applied to claim 2.

10. Claims 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nara (EP 0817440, listed in the IDS filed 4/16/04) in view of the admitted prior art.

Regarding claim 2, Nara teaches the claimed invention as applied to claim 1 above including using a Viterbi decoding means in the claimed preliminary decoding part (102 in Fig. 4), but does not particularly show the viterbi decoder includes a branch metrics calculating part, an ACS (Adding, Calculating & Selecting) part, a path metrics storing part, a tracebacks data storing part, and a traceback controlling part.

However, it is well known that all five parts are essential parts to construct a viterbi decoding means. The admitted prior art described in the background section (pages 1 and 2 of the specification) and Fig. 1 (see elements 210, 230, 250, 270 and 290) of the present application shows all five parts. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to construct the viterbi decoding means of Nara as claimed, since all five parts are

essential elements and explicitly required for a viterbi decoder. Note that the traceback controlling part would inherently control the tracebacks storing part according to each of the possible frame lengths since the viterbi decoder in the system of Nara decodes the data for each possible frame length.

Regarding claim 3, Nara further teaches that the decoded data outputting part comprises:

a frame length determining part for detecting the frame length based on the input data (104, 105 in Fig. 4; page 7, lines 3-19);

an output storing part for storing the preliminarily decoded data output from the tracebacks data storing part (105 in Fig. 4, 105 receives the decoded signals 125-128 from the viterbi decoder 102; also see page 7, line 24); and

an output controlling part for controlling the output storing part so as to output decoded data corresponding to the detected frame length (105 in Fig. 4; page 7, lines 24-25).

Regarding claim 5, claim 5 is the corresponding method claim of claim 2 and is therefore rejected for the same reason applied to claim 2.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iwakiri et al. (U.S. Patent No. 5,509,020), Padovani et al. (U.S. Patent No. 5,396,516).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (571) 272-3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Chieh M Fan
Primary Examiner
Art Unit 2634

cmf
September 16, 2004